

Nutritional Indices and Biology of the Armyworm, *Spodoptera litura* on Five Cotton Varieties

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Abstract : The effects of CB1, CB3, CB5, CB8 and CB12 cotton varieties on the nutritional indices and biological parameters of armyworm *Spodoptera litura* were studied under laboratory conditions. The armyworm larvae showed the highest and lowest food consumption rates on CB8 and CB1 variety, respectively. The efficiency of the conversion of digested food, efficiency of conversion of ingested food, approximate digestibility rates were statistically higher and similar on CB5 and CB8, and lowest on CB1. The larvae reared on CB12 variety exerted the lowest feeding and growth indices, and the relative growth rate was highest on CB8. The survival rates of egg, larva, pupa and adult moths were found highest on CB8 and lowest on CB12. The development durations of the immature stages of the insect differed significantly and the time elapsed from egg-to-adult emergence, longevity of both male and female moths, and their lifecycle were shortest on CB12 variety. The nutritional indices and biological parameters of the armyworm indicated that the varieties CB5 and CB8 were suitable host plants for feeding and development of *S. litura*.

Keywords : *Gossypium hirsutum*, *Spodoptera litura*, food consumption, life history

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